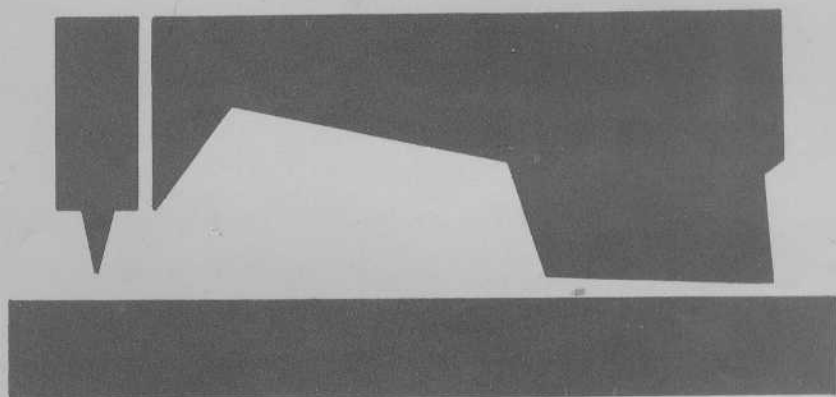




Products of Distinction T.M.



ZIG ZAG SEWING MACHINE

- The Woman's Choice
- "Sew" Wonderful
- "Sew" Beautiful
- "Sew" Simple

Dear Friend:

Thank you for selecting EMDEKO, we congratulate you for the discretion you have used in choosing the EMDEKO sewing machine as the sewing machine for your sewing pleasure.

This machine has been designed and engineered especially with you in mind, and it is our sincere desire that the performance of this product will prove that your decision will be a wise one.

It is our belief that the user of any product is the best judge of its merits.

We take great pride and gratification in the comments made by thousands of users. Some of the comments stated regarding EMDEKO are, "So simple to use". "So quiet and smooth". "So completely trouble free". "Everything I want in a sewing machine". "It is a pleasure to use", etc.

We are confident that the quality and simplicity of the EMDEKO sewing machine will give you years of sewing pleasure.

Kindest personal regards,

Keith Bigler
Customer Relations Dept.

CONTENTS

	Page
1. MACHINE AND FEATURES..... (Front).....	1
(Back)	2
2. BELT ADJUSTMENT.....	3
3. REPLACING NEEDLE.....	3
4. REMOVING BOBBIN CASE.....	3
5. WINDING BOBBIN.....	4
6. ADJUSTING BOBBIN WINDER.....	5
7. THREADING BOBBIN CASE.....	5
8. REPLACING BOBBIN CASE.....	6
9. THREADING MACHINE.....	6
10. PREPARING TO SEW.....	7
11. ADJUSTING UPPER THREAD TENSION.....	8
12. ADJUSTING BOBBIN THREAD TENSION.....	8
13. ADJUSTING FABRIC FEEDERS.....	9
14. ADJUSTING PRESSURE OF THE PRESSER FOOT.....	9
15. REGULATING STITCH LENGTH.....	10
16. NEEDLE POSITION REGULATING LEVER.....	11
17. ZIG ZAG SEWING.....	12
Regulating Width of Stitch.....	12
Locking Zig Zag Regulating Lever.....	13
Making Patterns.....	14 & 15
Cam Pattern Designs.....	16 & 17
18. CLEANING SHUTTLE AND RACE ASSEMBLY.....	18
19. OILING THE MACHINE.....	19
20. BUILT IN LIGHT.....	19
21. ACCESSORIES.....	20
A. Cloth Guide.....	21
B. Zipper Foot.....	21
C. Button Sewing Foot.....	22
D. Hemmer Foot.....	23
E. Buttonhole Foot.....	24
22. BLIND HEMMING.....	25
23. APPLIQUEING.....	25
24. EMBROIDERING AND MONOGRAMMING.....	26
25. DARNING.....	26
26. CAUSES OF COMMON DIFFICULTIES.....	27

1. MACHINE AND FEATURES

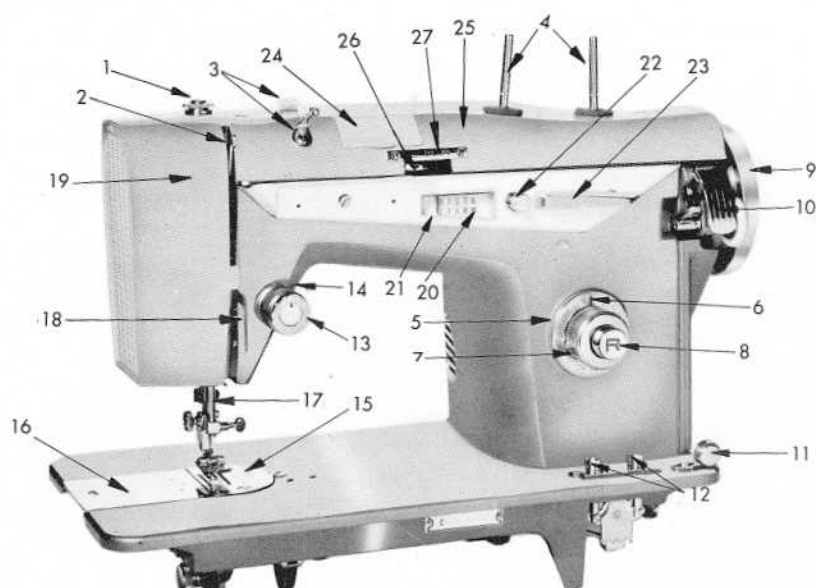


Fig. 1

FRONT

- | | |
|-----------------------------------|--------------------------------------|
| 1. Built-in Darning | 14. Thread Take Up Spring |
| 2. Thread Take Up Lever | 15. Needle Plate |
| 3. Upper Thread Guide | 16. Slide Plate |
| 4. Spool Pin | 17. Needle Bar |
| 5. Stitch Length Indicator Plate | 18. Thread Tension Guide |
| 6. Stitch Length Indicator | 19. Face Plate |
| 7. Stitch Length Dial | 20. Zig Zag Indicator Window |
| 8. Reverse Stitch Button | 21. Zig Zag Indicator |
| 9. Fly wheel | 22. Zig Zag Lock & Release Button |
| 10. Bobbin Winder | 23. Zig Zag Regulating Lever |
| 11. Bobbin Winder Thread Guide | 24. Zig Zag Disc Chamber |
| 12. Fabric Feeder Control Buttons | 25. Top Cover |
| 13. Thread Tension Regulator | 26. Needle Position Regulating Lever |
| | 27. Needle Position Indicating Plate |

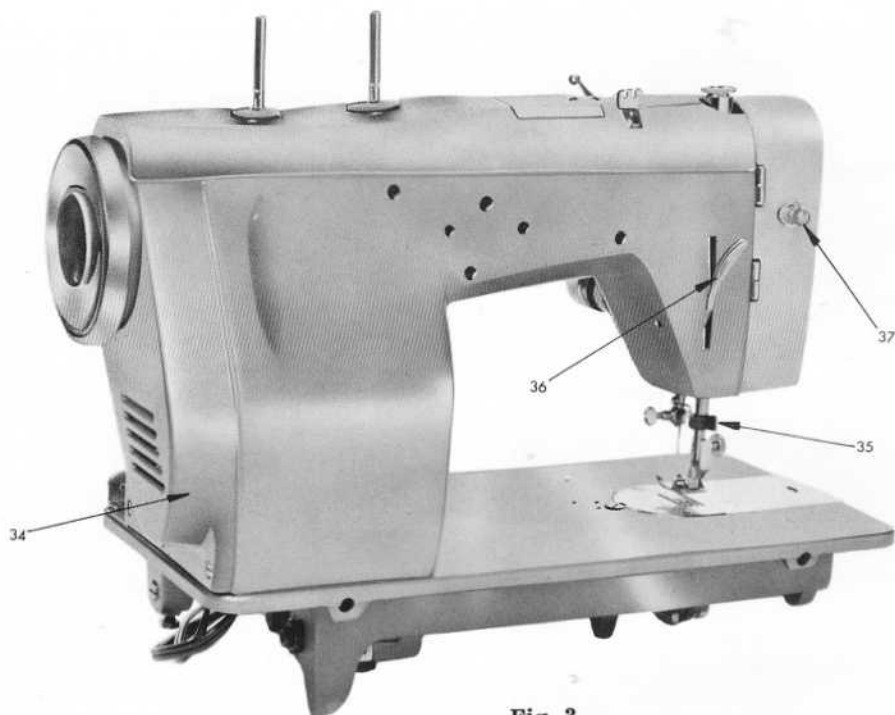


Fig. 3

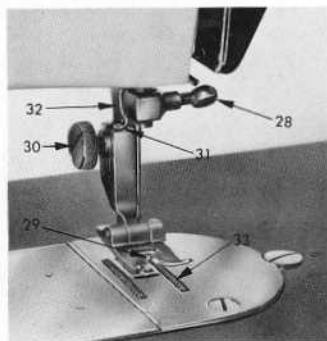


Fig. 2

- 28. Needle Clamp Thumb Screw
- 29. Presser Foot
- 30. Presser Foot Thumb Screw
- 31. Needle Bar Thread Guide
- 32. Presser Bar
- 33. Fabric Feeders

BACK

- 34. Motor Cover
- 35. Thread Cutter
- 36. Presser Bar Lifter
- 37. Sewing Light Switch

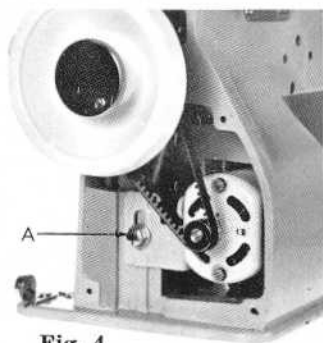


Fig. 4

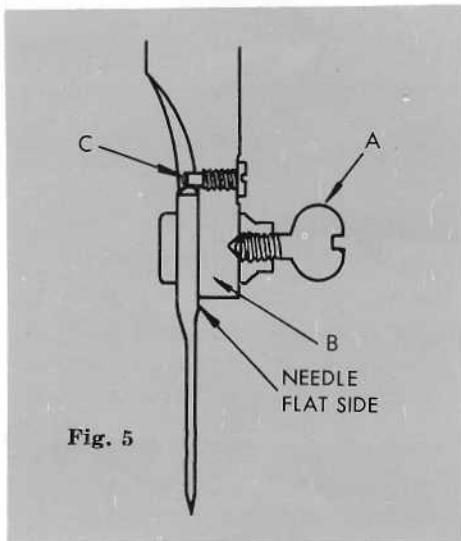


Fig. 5

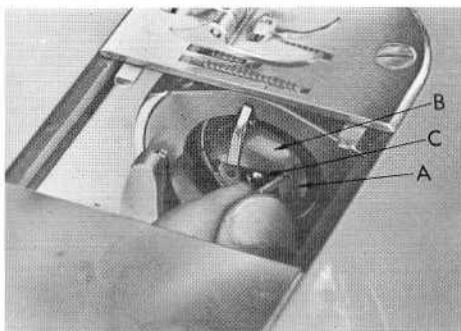


Fig. 6

2. BELT ADJUSTMENT

Remove motor cover and set screws. Loosen motor bracket screw (A). Slide motor bracket down to tighten-up to loosen.

CAUTION: Do not tighten belt too tight.

3. REPLACING NEEDLE

1. Raise the needle bar to its highest position. (Turn the fly wheel by hand toward you.)
2. Loosen needle clamp screw (A) and remove old needle.
3. Insert the needle into needle bar (B) with the flat side of the needle toward the fly wheel.

CAUTION: Be sure the needle is all the way up. It should rest against the needle stop pin (C).

4. Tighten the needle clamp screw securely with screw driver.

CAUTION: Check needle and make sure it is not bent or dull.

4. REMOVING BOBBIN CASE

1. Raise the needle bar to its highest position. (Turn the fly wheel toward you by hand.)
2. Open slide plate. With the left thumb and forefinger, open the latch (A) of the bobbin case (B).
3. Remove bobbin case from the spindle post (C). (Pull to the left.)

NOTE: With the latch held open, the bobbin is locked inside the bobbin case. To remove bobbin from the bobbin case, release the latch.

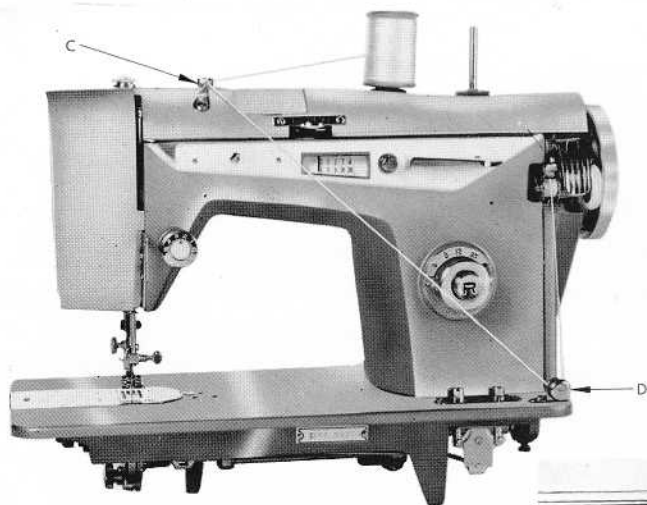


Fig. 8

5. WINDING BOBBIN

1. Hold the fly wheel (A) Fig. 7 with the left hand and turn the clutch (B) Fig. 7 toward you to release the clutch. By doing this, the fly wheel turns freely.

NOTE : If the needle moves, the clutch is not completely released.

2. Place thread on the spool pin and guide the thread through the upper thread guide (C) Fig. 8. Then bring the thread across the machine and under the bobbin winder thread guide (D) Fig. 8.
3. Wind the thread several times on the bobbin (E) Fig. 9. Now place the bobbin on the spindle (F) Fig. 9. of the bobbin winder.

NOTE : The lock spring on the spindle must fit into the slot in the bobbin. This is done by holding the rubber ring (G) Fig. 9 with the right hand and turning the bobbin with the left hand until the lock spring slips into the slot of the bobbin.

4. Push the latch (H) Fig. 9 of the bobbin winder down until the rubber ring (G) Fig. 9 is brought in contact with the fly wheel.
5. Turn the fly wheel slowly toward you ; then operate the machine as in sewing. When the bobbin is full, it will stop.
6. Remove the bobbin from the spindle, then re-engage the machine by holding the fly wheel with the left hand and with the right hand turn the clutch away from you.

NOTE : Make sure you tighten firmly.

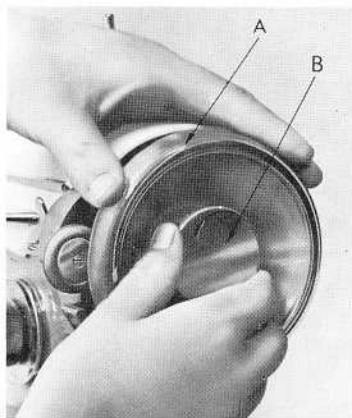


Fig. 7

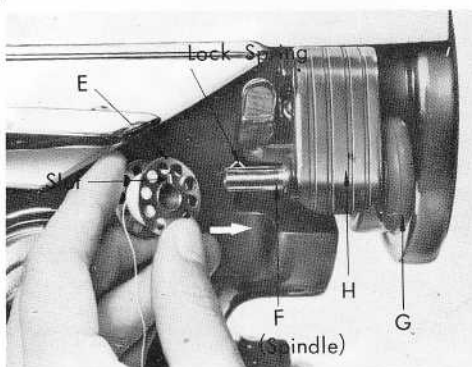


Fig. 9

6. ADJUSTING BOBBIN WINDER

1. If the thread winds unevenly on the bobbin as shown in Fig. 11 and 12, loosen screw (A) Fig. 13 and adjust the bobbin winder thread guide bracket (B) Fig. 13.
2. If the thread winds as in Fig. 11, move the bracket slightly to the left. If the thread winds as in Fig. 12, move the bracket slightly to the right.



Fig. 10

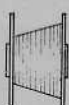


Fig. 11



Fig. 12

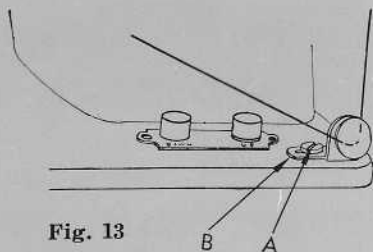


Fig. 13

7. THREADING BOBBIN CASE

1. Hold the bobbin case between the left thumb and forefinger with the slot up. With 5 or 6 inches of thread trailing in the palm, hold the bobbin between the thumb and first two fingers of right hand.
2. Insert the bobbin into the bobbin case, then pull the trailing thread into the slot, up to the left until it enters the delivery eye under the tension spring. There should be a slight tension on the thread as it pulls through the delivery eye.

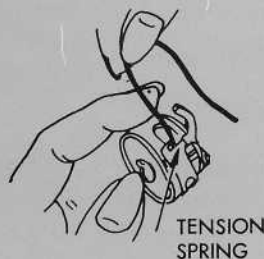
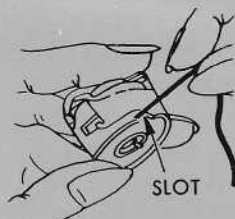
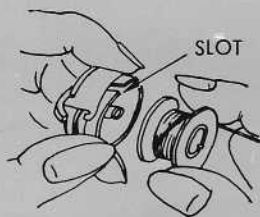


Fig. 14

8. REPLACING BOBBIN CASE

1. Turn fly wheel toward you by hand until the needle bar is at its highest position, and open the slide plate. Draw about 3 inches of thread from the bobbin and let it hang loosely from the bobbin case.
2. With the left thumb and forefinger, hold the latch (A) of the bobbin case (B) and place it on the spindle post (C).
NOTE : The protruding finger (D) must slide into the delivery eye (E) at the top of the shuttle.
3. Release the latch and press the bobbin case to the right until it catches the groove on the spindle post.

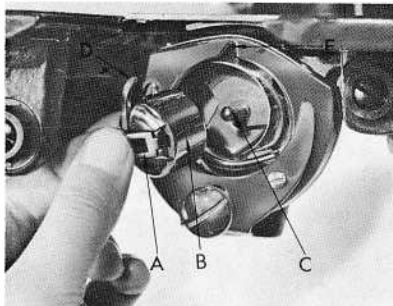


Fig. 15

9. THREADING MACHINE

1. Turn the fly wheel toward you and raise the take up lever (E) to its highest position. Place thread on the spool pin and bring the thread through the upper thread guide (A & A').
2. Bring the thread down through the thread guide to the tension disc (B) from right to left and up. Then pull the thread up through the thread take up spring (C).
3. Bring the thread through the thread tension guide (D) and thread the take up lever (E) from right to left.
4. Bring thread down through the thread guide (F) at the opening in the face plate, and through the needle bar thread guide (G) from behind. Thread the needle from left to right, leaving about 5 or 6 inches of thread.

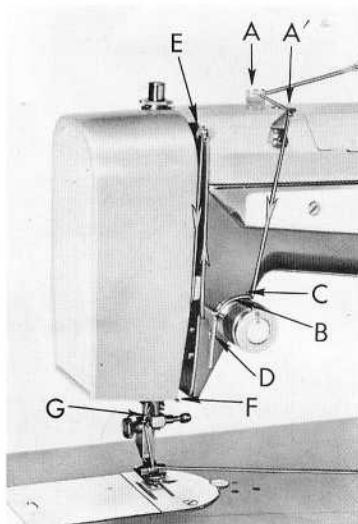


Fig. 16

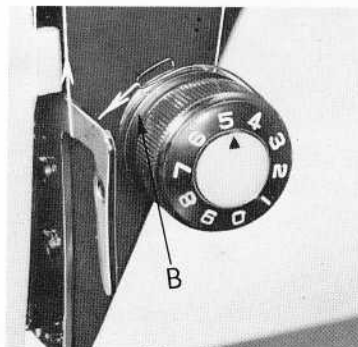


Fig. 17

10. PREPARING TO SEW

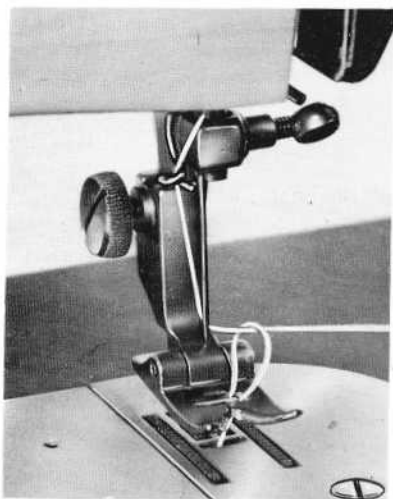


Fig. 18

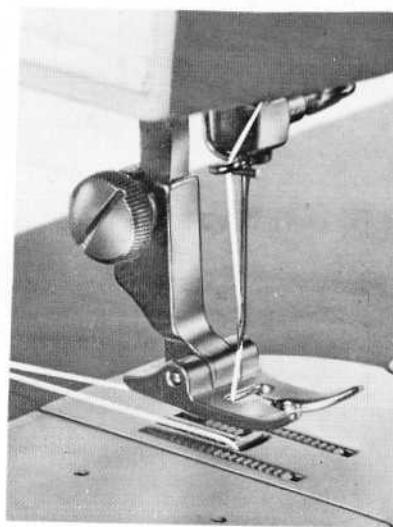


Fig. 19

1. Hold the loose end of the needle thread in your left hand, and turn the fly wheel toward you by hand until the needle moves down through the needle plate and up again to its highest position. Pull the needle thread gently, and the bobbin thread will come up with it through the hole in the needle plate. Then place both ends of the thread back between the toes of the presser foot.

NOTE : If the bobbin thread does not rise, check to see if there is at least 3 or 4 inches of bobbin thread hanging loosely from the bobbin case.

2. Pull the two threads at least 5 inches behind the presser foot. Place material under presser foot, and lower the foot with the presser bar lifter. Regulate the stitch to the desired size and sew.

TO REMOVE MATERIAL, raise the needle to its highest position and raise the foot with the presser bar lifter, then pull the fabric back and to the left. Cut the thread with the thread cutter behind presser bar, leaving a few inches of thread behind the presser foot.



11. ADJUSTING UPPER THREAD TENSION

The correct stitch can usually be obtained by varying the upper thread tension. **NOTE** : TENSION ADJUSTMENT SHOULD BE MADE WITH THE PRESSER FOOT DOWN.

To increase the tension, turn the tension dial clockwise (Fig. 20). To decrease the tension, turn the tension dial counter clockwise (Fig. 20). When the tension is properly adjusted, the upper and lower threads will cross in the center of the material (Fig. 21-A).

When the upper thread tension is too tight, or the bobbin tension is too loose, the lower thread will lay flat along the top of the material (Fig. 21-B).

When the upper thread tension is too loose or the bobbin tension too tight, the upper thread will lay flat along the bottom of the material (Fig. 21-C).

The tension should be adjusted little by little until the desired tension is obtained.

NOTE : Each machine varies, and the proper upper tension setting may be anywhere between one and six.

Adjust upper thread tension until proper tension is obtained for your particular machine.

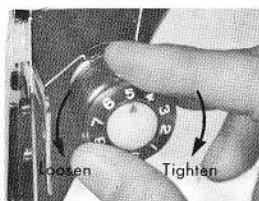


Fig. 20

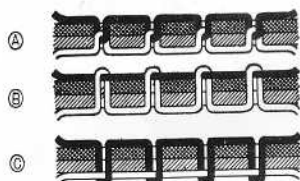


Fig. 21

12. ADJUSTING BOBBIN THREAD TENSION

1. The bobbin thread tension on your machine is correctly adjusted before leaving the factory. Therefore, it is seldom necessary to alter the bobbin thread tension. Should it become necessary to do so, the adjusting screw on the outside of the bobbin case can be tightened or loosened to increase or decrease the tension of the bobbin thread.
2. To increase the bobbin thread tension, turn the adjusting screw clockwise. To decrease tension of the bobbin thread, turn the adjusting screw counter clockwise.

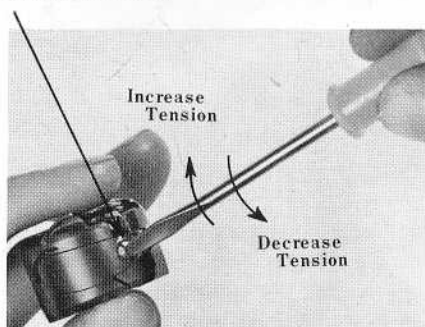


Fig. 22

13. ADJUSTING FABRIC FEEDERS

By using the push buttons you can adjust the fabric feeders for sewing different types of materials and other special sewing, such as embroidering or darning.

1. For ordinary sewing, press "UP" button all the way down. (This raises the fabric feeders to the up position)
2. For sewing very light fabrics, press "DOWN" button half way down so that the center line of the "UP" button appears on the plate.
3. To lower the fabric feeders below the surface of the needle plate, press the "DOWN" button all the way down. The fabric feeders are now in the down position, and you will be able to move your material freely in any direction, such as when you desire to embroider or darn. When embroidering and darning, remove the presser foot and use an embroidery hoop.

"UP" Position
Normal Fabrics

"MEDIUM" Position
Lightweight Fabrics

"DOWN" Position
Embroidering & Darning

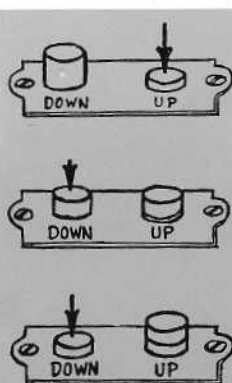


Fig. 23

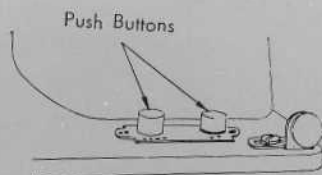


Fig. 24

14. ADJUSTING PRESSURE OF THE PRESSER FOOT

1. To release the pressure on the material, press down on the curled ring (A). (This will allow the built-in darning (B) to raise, thus releasing the pressure on the material.)
2. To increase the pressure on the material, press down on the built-in darning (B).
3. For normal sewing, push built-in darning all the way down.
4. For darning and embroidering, release the built-in darning.

CAUTION : Even though the presser foot is removed, make sure the presser bar lifter is in the down position.

5. Adjust the built-in darning to the proper position according to the thickness of the material you are using.

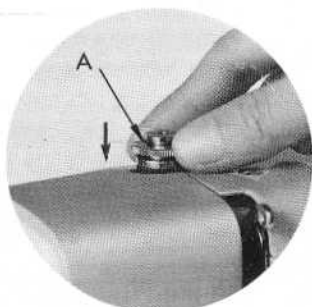


Fig. 25

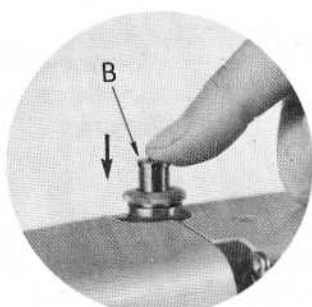


Fig. 26

15. REGULATING STITCH LENGTH

1. FORWARD—The number behind the stitch length indicator (C) indicates the number of stitches per inch.

To sew at the desired stitch length, turn the stitch length dial (B) until the stitch length indicator (C) is directly in front of the number on the stitch length indicator plate (A).

For normal sewing, turn the stitch length dial to #12 in red. This means you will have 12 stitches per inch.

2. BUTTONHOLES—To adjust the stitch length for making buttonholes, set the stitch length indicator (C) to the letters BH in red on the stitch length indicator plate (A). This setting may also be used when you desire to make satin stitch designs.

3. REVERSE SEWING—Push the button indicated by letter "R" as far as possible. Holding the button in, you can make your reverse stitch. When you release the button, the machine comes back to make a forward stitch. If a different length of stitch is required, set first the required stitch mark on arrow and then push the button.

CAUTION: Do not set the stitch length indicator (C) on "O". When set in this position, the fabric feeders do not feed the material. This will cause the machine to break the thread.

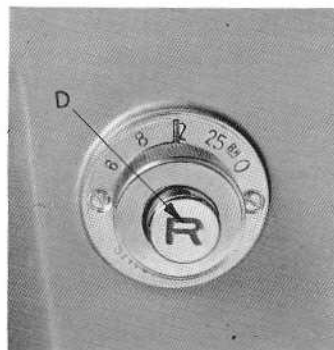


Fig. 27

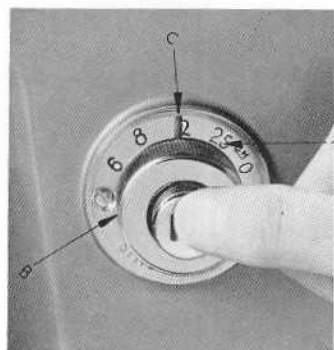


Fig. 28

16. NEEDLE POSITION REGULATING LEVER

Needle position regulating lever (A) controls the position of needle on LEFT, MIDDLE and RIGHT.

Straight sewing: When you set the lever (A) at "L" on needle position indicating plate B you can get straight stitch on the left side of needle plate hole; at the mark "M" the needle position is always at the centre and at the mark "R" always on the right side.

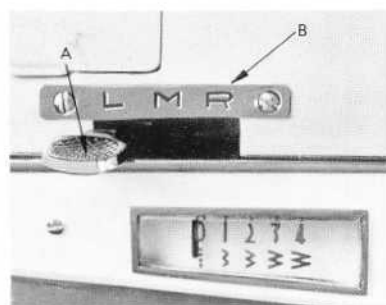


Fig. 29

Zig-zag sewing: When the needle position regulating lever (A) is set at "L", the pattern zig-zag should be made on left side toward right Fig. 30.

When the lever set at mark "M" the pattern is made on both sides of the middle line, and at mark "R" on the right side toward left as shown in Fig. 32.

CAUTION:

- 1) It is necessary to press needle position regulating lever down lightly when setting the lever at L. M. R.



Fig. 30



Fig. 31

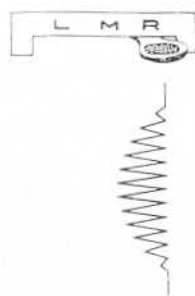


Fig. 32

17. ZIG ZAG SEWING

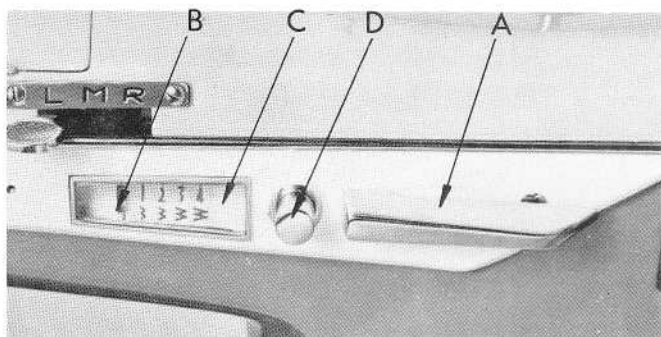


Fig. 33

REGULATING WIDTH OF STITCH

The zig zag regulating lever (A) controls the width of the stitch. When you push down on the zig zag regulating lever, you will notice that the zig zag indicator (B) moves from "0" to the numbers 1, 2, 3, 4 on the zig zag indicator window (C).

When the zig zag indicator is at the position "0", the machine makes a straight stitch. As the zig zag indicator moves (by pushing down on the zig zag-regulating lever) from "0" toward the numbers 1, 2, 3, 4, the width of the stitch will become progressively wider. The larger the number the wider the stitch.

NOTE : The zig zag regulating lever returns to the horizontal position when released.

CAUTION : It is not necessary to press in on the zig zag lock and release button (D) when operating the zig zag regulating lever.

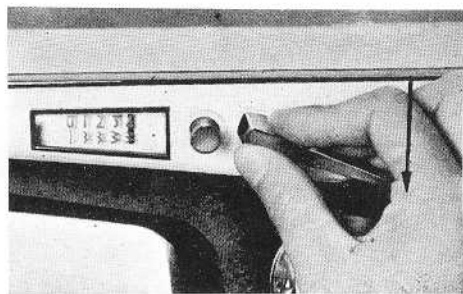


Fig. 34

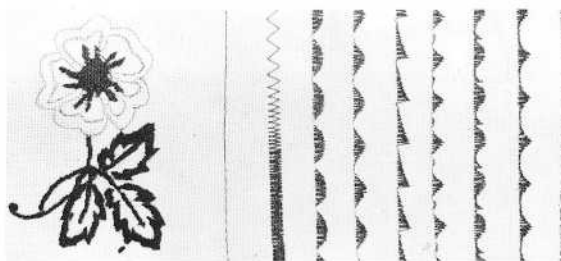


Fig. 35

LOCKING ZIG ZAG REGULATING LEVER

To lock the zig zag regulating lever so that the machine sews a uniform stitch width, first press the zig zag regulating lever down until the zig zag indicator is behind the number on the zig zag indicator window that you desire.

While holding the zig zag regulating lever, press the zig zag lock and release button all the way in. Now release the zig zag lock and release button. (Fig. 36)

CAUTION: Do not release the zig zag regulating lever until after you have released the zig zag lock and release button.

You will notice that the zig zag indicator is locked on the number which the zig zag indicator was set behind. If the zig zag indicator is locked behind any number larger than "0" up to "3½", you will notice that when the zig zag regulating lever is pressed down, the zig zag indicator will move from that number to #4. When the zig zag regulating lever is released, the zig zag indicator will return to the number behind which it was locked. To release the zig zag regulating lever, press the zig zag lock and release button.

CAUTION: When you press the zig zag lock and release button, do not hold the zig zag regulating lever. (Fig. 37)

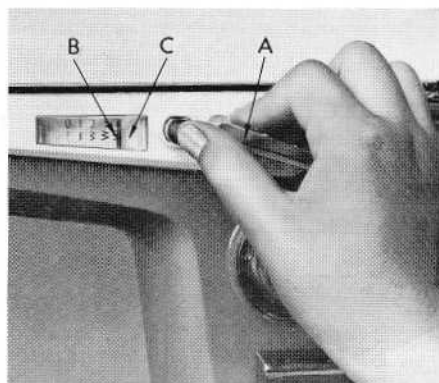


Fig. 36

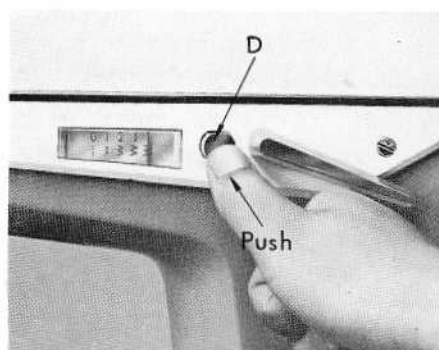


Fig. 37

MAKING PATTERNS

By pressing the zig zag regulating lever down as you are sewing, the pattern formed will be as in Fig. 38. When you slowly release the zig zag regulating lever back to its horizontal position, you will form the pattern as in Fig. 39. By moving the zig zag regulating lever slowly from "0" to "4" and slowly back to "0" as the machine is sewing, you will form the pattern as in Fig. 40.

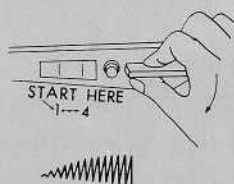


Fig. 38

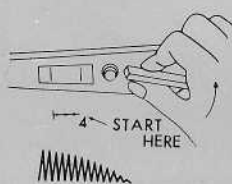


Fig. 39

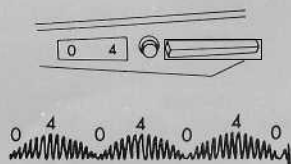


Fig. 40

You can form the pattern as in Fig. 41 by holding the zig zag regulating lever all the way down.

NOTE: The zig zag indicator will be on #4. You may lock the zig zag regulating lever in this position (Page 13)

You can form the pattern as in Fig. 42 by pressing down on the zig zag regulating lever until the zig zag indicator is on #2. (You may lock the stitch in this position. See Page 13.)

In order to form the pattern as in Fig. 43, first lock the zig zag indicator on #2, then press the zig zag regulating lever all the way down so that the zig zag indicator is on #4. Sew the desired number of stitches and while the machine is still running, quickly release the zig zag regulating lever. The machine will now sew a #2 zig zag stitch. Sew the number of stitches desired and quickly press the zig zag regulating lever all the way down. Sew the number of stitches desired and repeat.

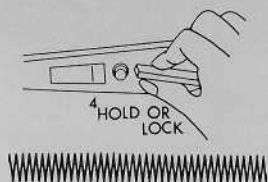


Fig. 41

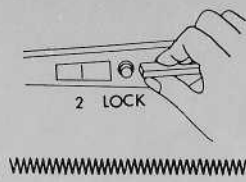


Fig. 42

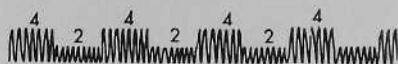


Fig. 43

You can form the pattern as in Fig. 44 by slowly pressing down on the zig zag regulating lever as the machine is running until the zig zag indicator is on #4, then quickly release the zig zag regulating lever and again slowly press down on the zig zag regulating lever. Repeat as often as desired.

In order to form the pattern as in Fig. 45, first press the zig zag regulating lever all the way down, and while running the machine slowly release the zig zag regulating lever until the zig zag indicator is on "0". When the zig zag indicator reaches "0", quickly press the zig zag regulating lever all the way down. Repeat as often as desired.

In order to make the pattern as formed in Fig. 46, with the zig zag indicator on "0", sew a straight stitch for the length desired; then while the machine is still running, quickly press the zig zag regulating lever all the way down. Sew the number of stitches desired and then quickly release the zig zag regulating lever. Repeat as often as desired.

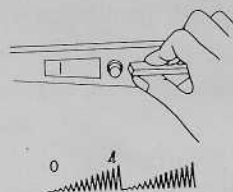


Fig. 44

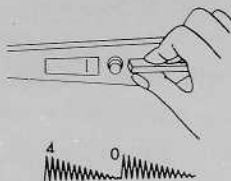


Fig. 45

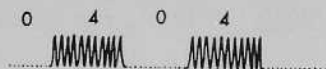


Fig. 46

NOTE: The above patterns are just a few of the numerous patterns that you will be able to make with your machine. By varying the speed with which you press down on the zig zag regulating lever and releasing the zig zag regulating lever at the same time varying the stitch length and; the number of stitches made, you will be able to create hundreds of different patterns.

CAUTION: When the machine is not sewing, do not press the zig zag regulating lever down unless the needle is raised out of the material. When making patterns, for best results, the machine should be sewing at a moderate rate of speed.

CAM PATTERN DESIGNS

This machine has 24 designs and can sew various patterns by inserting cams in the machine and by changing the stitch length.

Moreover, very beautiful patterns can be obtained by using colorful threads.

The following charts show some typical patterns obtained by respective cams.

You can make desired patterns by using 24 cams in different stitch length with colorful threads.

1. First lock zig zag regulating lever (A) on #4.
2. Open the cam cover (B) and then insert a cam you desire into the cam shaft (C), and then close the cover.
3. Press the zig zag lock & release button (D).
4. Next run the machine and you will obtain the design on material as shown on next page.

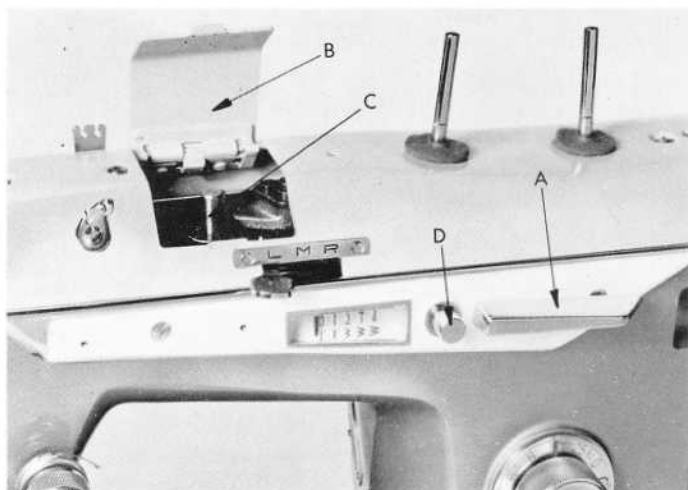


Fig. 47

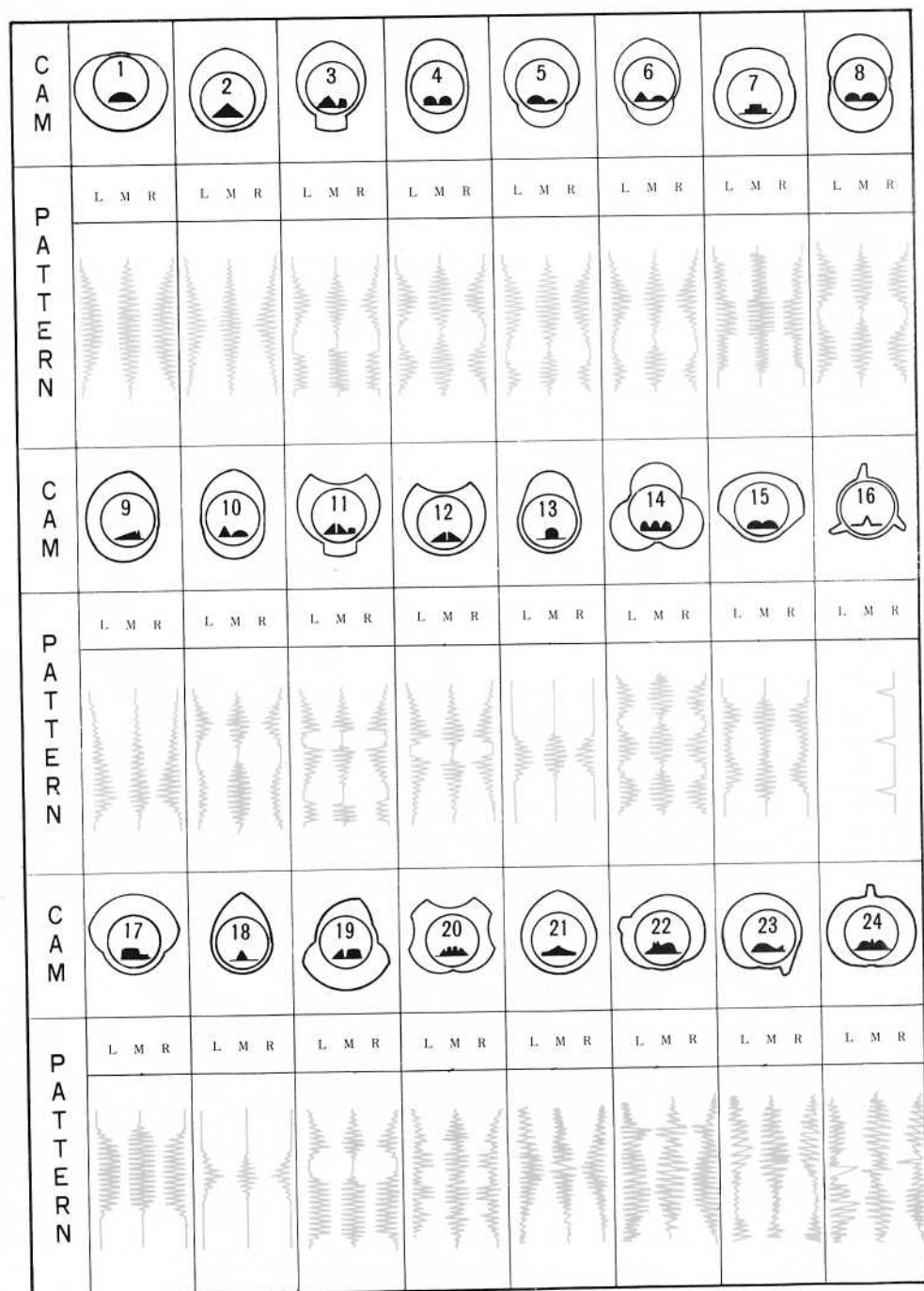


Fig. 48

18. BEFORE EACH "SEWING SESSION" BE SURE TO CLEAN SHUTTLE AND RACE ASSEMBLY

All sewing machines will jam, causing the thread to break, skipped stitches and causing machine to bind. The solution to this problem is to keep race assembly free of small pieces of thread at all times. To clean:

Remove needle, presser foot and needle plate. (See Page 1)

Raise the needle bar to its highest position and remove the bobbin case. Loosen thumb screw (A) located on race cover (B) and remove shuttle cover from the race assembly.

Take hold of the holder post (C) of the shuttle, and remove the shuttle from the race assembly.

Carefully clean the race assembly, making sure that you remove any thread or lint that may become trapped in the shuttle and race assembly. Also thoroughly clean the fabric feeders (D). This can be done with a stiff brush. Clean head to reach areas with the end of a needle.

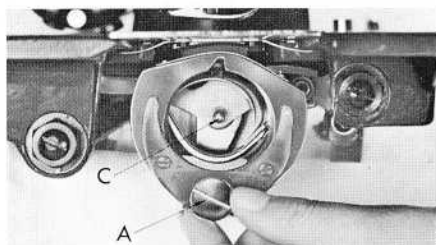


Fig. 49

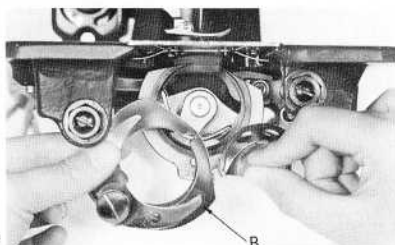


Fig. 50

REPLACING SHUTTLE IN RACE ASSEMBLY

Raise the needle bar to its highest position. With the left thumb and forefinger, take hold of the shuttle by the holder post. Turn the shuttle so that the open ends slide over the ends of the shuttle driver (E). Gently press in.

Take the race cover in your left hand. Place the race cover over the race assembly making sure that the two small posts on the race assembly fit into the small holes on the race cover. Tighten thumb screw.

CAUTION: Do not tighten the thumb screw with a screw driver. Tighten it snugly with the thumb and forefinger.

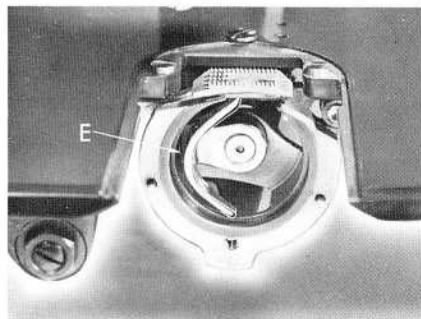


Fig. 52

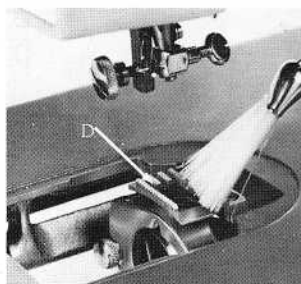


Fig. 51

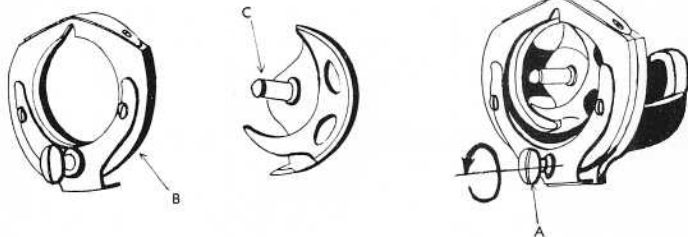


Fig. 53

19. OILING THE MACHINE

As is the case with all precision machinery, it is necessary for maximum efficiency to properly oil and clean at reasonable intervals. Even though the machine is not in constant use, it is important to oil your machine since the oil will dry after standing over a period of time.

The underside of the machine should be oiled at the arrow points as shown in Fig. 54.

NOTE: Before oiling, clean away all lint or foreign matter. One or two drops are sufficient at each point.

The machine should be oiled at the arrow points as shown in Fig. 55. These parts are accessible by opening the face plate.

To oil the top parts of your machine, remove the two screws (A & B) located at each end of the top cover (C). Remove top cover and oil the parts located at the arrow points as in Fig. 56.

NOTE: After you have cleaned and oiled your machine, it is advisable to run the machine at high speed so that the oil will penetrate all moving parts.

CAUTION: After cleaning and oiling machine, wipe away all excess oil, and sew on waste material.

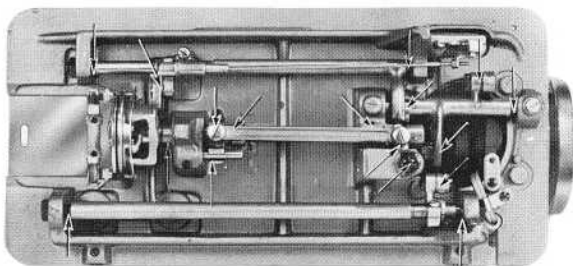


Fig. 54

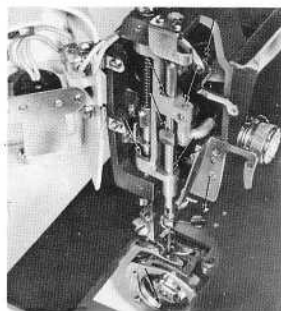


Fig. 55

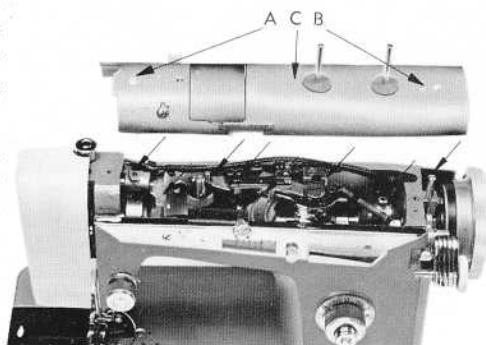


Fig. 56

20. BUILT IN LIGHT

Your machine is equipped with a built in sewing light, located inside the face plate. (Page 1-#19)

NOTE: Face plate is hinged (See Fig. 57) and opens from left to right.

The sewing light switch is located on the back of the face plate (See Page 2). The sewing light is a standard bulb and can be easily replaced.

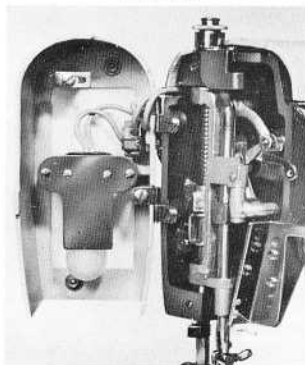


Fig. 57

21. ACCESSORIES

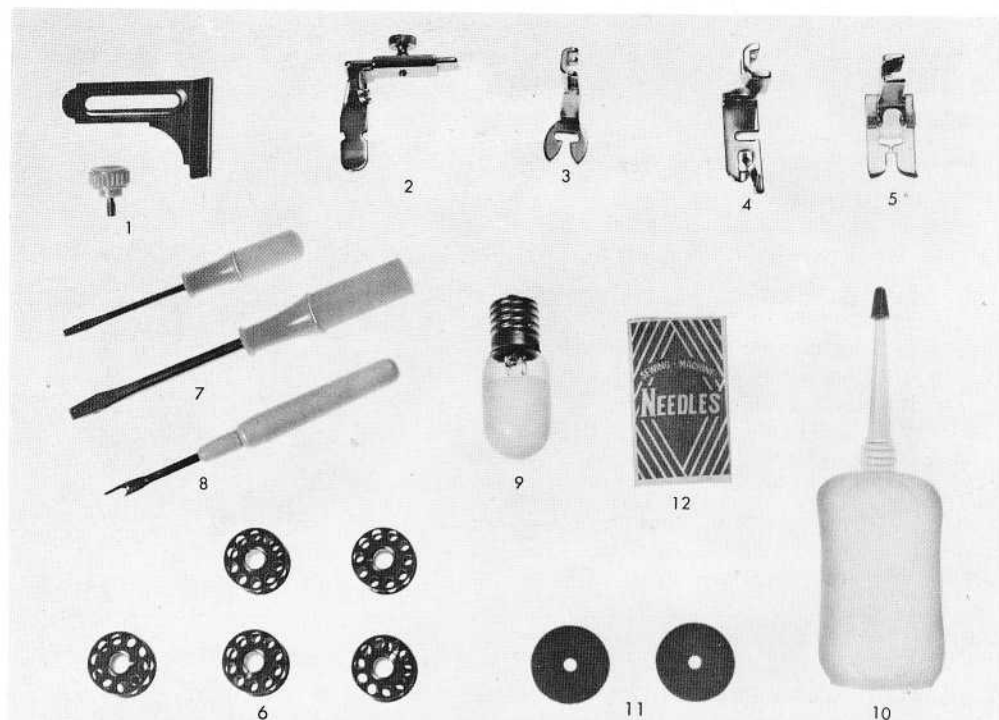


Fig. 58

1. Cloth Guide
2. Zipper Foot
3. Button Sewing Foot
4. Hemmer Foot
5. Buttonhole Foot
6. Bobbins
7. Screw Drivers
8. Seam Ripper
9. Bulb
10. Oil Can
11. Spool Pin Felt
12. Needles

HOW TO USE PRESSER FEET

Your machine is equipped with various specialized feet which will enable you to do particular jobs with greater efficiency and obtain better results. Whenever you attach a new foot to the presser bar, make sure you tighten the screw securely with a screw driver.

A. CLOTH GUIDE

Attach cloth guide to the bed of the machine (See Fig. 59). The cloth guide will enable you to make a straight stitch at a uniform distance from the seam. The cloth guide is adjustable, making it possible to make a straight stitch at various distances from the seam.

B. ZIPPER FOOT

Your machine is equipped with an adjustable zipper foot. Set the zipper foot on the left side as shown in Fig. 60. This will allow you to sew on the left side of zipper without danger of damaging the zipper or the needle. To sew on the right side of the zipper, adjust the zipper foot to the right side by loosening the screw located on the back of the zipper foot.

NOTE: When using the zipper foot, always sew with a straight stitch.

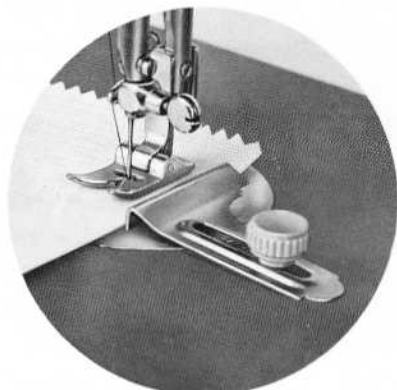


Fig. 59



Fig. 60

C. BUTTON SEWING FOOT

NOTE: Be sure to set the needle position regulating lever on "L".

Attach button sewing foot to presser bar. Drop the fabric feeders below the needle plate by pushing the "DOWN" button. (See Page 9 - Fig. 23)

After the fabric is placed under the foot, put the button between the fabric and the button sewing foot. Slowly turn the fly wheel toward you by hand, passing the needle through the left eye of the button. When the needle is half way through the button, carefully, with the presser bar lifter, lower the button sewing foot on the button.

Turn the fly wheel by hand toward you until the needle raises out of the button to its highest position. Continue turning the fly wheel until the point of the needle is just above the button. Adjust the stitch width with the zig zag regulating lever.

NOTE: The needle will move from left to right.

When the needle is directly above the right eye of the button, lock the stitch width by pressing the zig zag lock and release button. (Page 13)

Run the machine at medium speed, making 6 or 7 stitches. Raise the needle out of the button. Press the lock and release button. Set the zig zag indicator at "0". Make several stitches through the left eye of the button. This will lock the stitches.

You will be able to sew on four eyed buttons by following the same procedure.

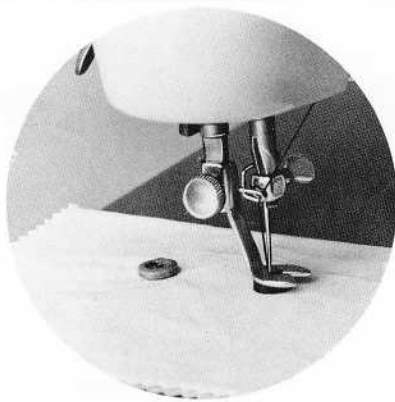


Fig. 61

D. HEMMER FOOT

1. Straight Stitch Narrow Hem

Attach the hemmer foot. Lock the needle position regulating lever on "L." Set the zig zag indicator at "O", then adjust the stitch length to medium size. (See Page 10)

Fold the material over about 1/8 inch, then insert the fold beneath the hemmer into the scroll by moving the material back and forward gently and hem rolls into the scroll of the hemmer foot.

After the material is properly inserted into the hemmer foot, pull the material toward you until the end of the material is just below the needle.

Lower the presser bar, then sew the first few stitches slowly while holding the hem between the thumb and forefinger of the right hand.

CAUTION: Do not feed the material too fast or too slow into the hemmer.

2. Narrow Rolled Edge

Set zig zag indicator on #2, then follow same procedure as in making straight stitch narrow hem.

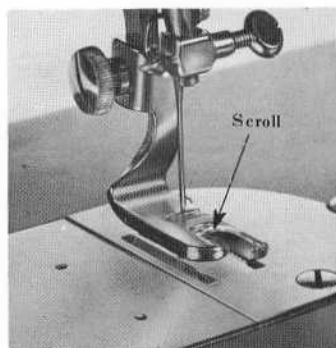
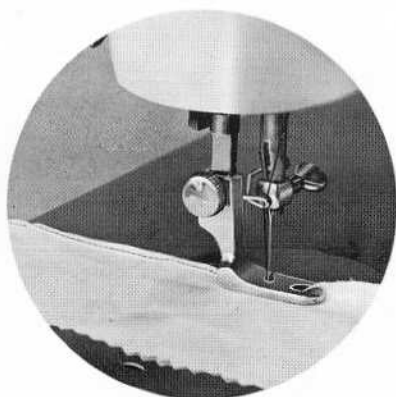


Fig. 62

E. BUTTONHOLE FOOT

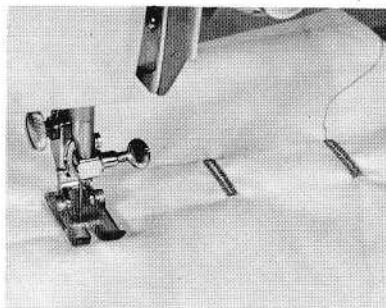


Fig. 63

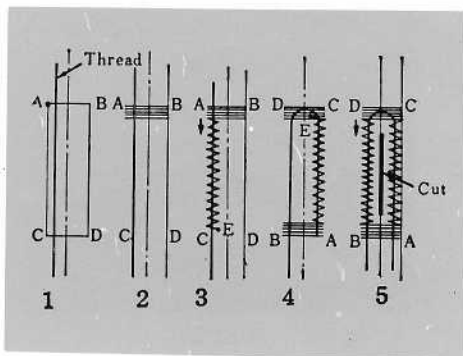


Fig. 64

1. Lock the needle position regulating lever at "L." Attach buttonhole foot, and set stitch length indicator on BH (See Page 10- #2)
2. Set zig zag indicator between 1 and 2 and lock into position. (See Page 13 - Fig. 36)
3. Push "DOWN" button to drop fabric feeders.
4. Place material under the foot so that when you start sewing you will sew from position A shown in Fig. 64 - #1. Lower the foot on to the material. Press the zig zag indicator lever down until the zig zag indicator is behind #3 on the zig zag indicator window (See Page 12 - Fig. 33) Then sew between A & B shown in Fig. 64 - #2, and make 4 or 5 stitches.
5. Raise the fabric feeders to up position. Release zig zag regulating lever so that the indicator returns to the position between 1 and 2.
6. Sew from A to C shown in Fig. 64 - #3. With the needle half way through the material on the left side of the zig zag stitch (Fig. 64 - #3E), using the needle as a pivot, turn the material in the opposite direction.
7. Lower the fabric feeders as in step #3. Turn the fly wheel toward you by hand until the needle is at its highest position. Press the zig zag regulating lever down until the indicator is behind #3. (See step #4). Sew from C to D as shown in Fig. 64 - #4. Release zig zag regulating lever so that the zig zag indicator returns to the position between 1 and 2.
8. Raise fabric feeders and sew between D and B as shown in Fig. 64 - #5. **CAUTION:** Sew between D and B carefully, being carefull not to overlap the two sides of the buttonhole.
9. With the ripper, cut the cloth between the two sides of the buttonhole. (Fig. 64 - #5)

22. BLIND HEMMING

1. Lock the needle position regulating lever on "R".
2. Set stitch length dial to #12 in red.
3. Insert No. 16 cam.
4. Prepare the garment in the same manner as for hand hemming.

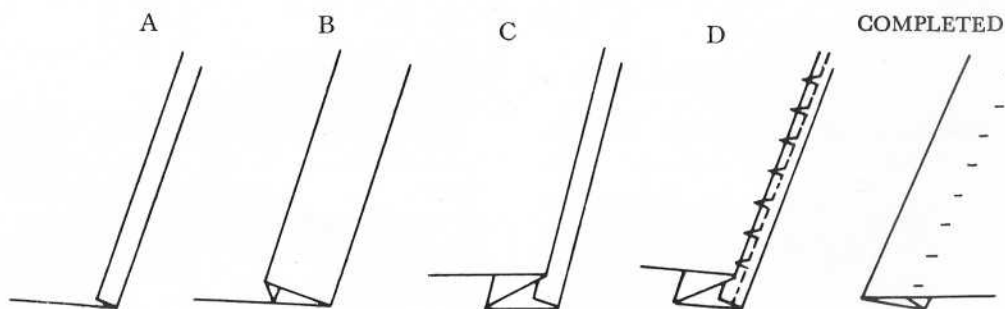


Fig. 65

- A. If hem with folded edge is used, make first fold $\frac{3}{8}$ " deep.
- B. Turn hem the depth desired and baste $\frac{1}{4}$ " from upper edge. Press in place.
- C. Fold hem back toward left side of garment leaving $\frac{1}{4}$ " extended.
- D. Place material under presser foot, with top folded edge to the left of the needle.

23. APPLIQUEING

1. Set needle position regulating lever on "L".
2. Adjust the machine to a narrow zig zag stitch.
3. Set the stitch length to BH. Base material on to the article, then sew around the edges of the material.

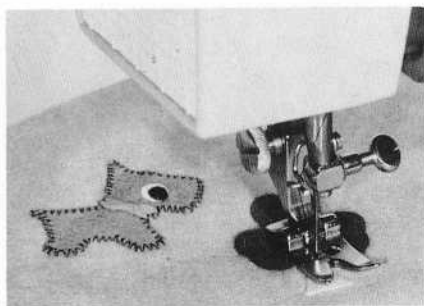


Fig. 66

24. EMBROIDERING AND MONOGRAMMING

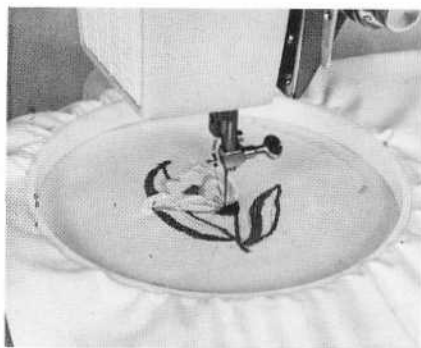


Fig. 67

1. Release pressure of presser foot. Lower fabric feeders. Lock zig zag indicator into position "2" behind the zig zag indicator window. Put material into embroidery hoop, then place under foot. Lower foot, then turn the fly wheel toward you by hand and raise the lower thread through the material so that both the upper and lower threads are on top of your material.
2. Sew at medium speed. Move material slowly so that the thread will be close together as in a satin stitch. With a little practice you will be able to do many types of designs and gain a great deal of pleasure from your machine.

25. DARNING

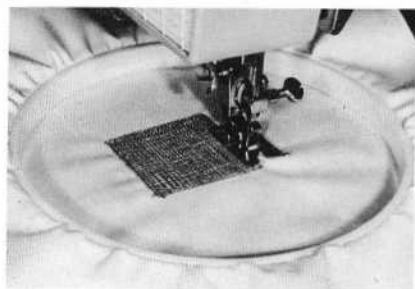


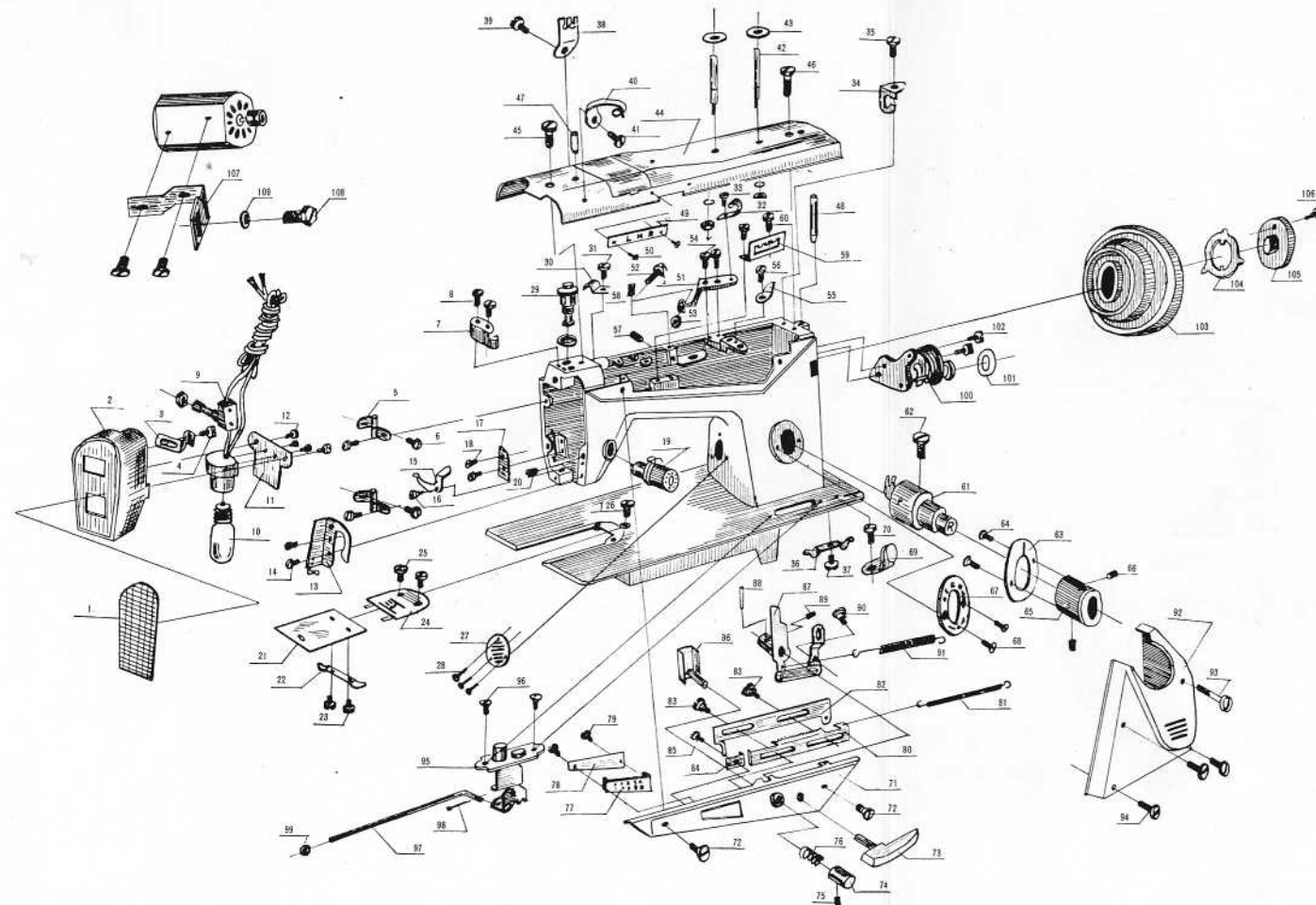
Fig. 68

1. Release the pressure of the presser foot. Lower the fabric feeders, and place the material under the foot and lower the presser bar.
NOTE: This enables you to move the material in any direction while the machine is running.
2. Sew around the areas you desire to darn. Then move the material back and forth, sewing out beyond the worn or open place in the material. Continue until the hole is covered, going both sideways and forward and back.
NOTE: While darning, run the machine at medium speed.

26. CAUSES OF COMMON DIFFICULTIES

NOTE: Clean and oil machine at regular intervals.

	Page
A. Machine Makes Noise	19
1. Thread jammed in race assembly. (Clean and oil shuttle and race assembly)	18
2. Blunt needle.	
3. Needle plate not placed in properly.	
4. Slide plate not all the way to the right.	
B. BREAKING UPPER THREAD	
1. Incorrect threading.	6
2. Upper thread tension too tight.	8
3. Lower thread tension too tight.	8
4. Faulty needle, or needle placed incorrectly.	3
5. Needle brushing against presser foot or other attachments.	
6. Needle eye too small for thread used.	
7. Starting the machine suddenly or with a jerk.	
8. Starting the machine with the take up lever at its highest point.	
9. Presser bar not lowered.	
10. Thread jammed in race assembly. (Clean)	18
C. BREAKING THE LOWER THREAD	
1. Incorrect threading of the bobbin case.	5
2. Lower thread tension too tight.	8
3. Bobbin wound too full or improperly.	4
4. Rough edge in hole of needle plate.	
D. BREAKING THE NEEDLE	
1. Pulling or holding the fabric while machine is running.	
2. Using bent needle.	
3. Needle not set in securely. (Tighten needle clamp screw with screw driver)	
E. SKIPPING STITCHES	
1. Using bent or blunt needles.	
2. Needle inserted incorrectly.	3
3. Needle threaded improperly.	6
4. Using wrong size needle. (Length - Use 15 × 1 needle)	
5. Pressure of presser foot insufficient, especially when sewing heavy material.	
F. UNEVEN STITCHES	
1. Presser foot not resting evenly on material.	
2. Fabric feeders not high enough.	9
3. Stitches too short.	10
4. Pulling or holding the cloth while machine is running.	
5. Using too fine a needle with too coarse a thread.	
6. Upper and lower thread tensions not adjusted properly.	8



- 1 Face Plate Cover Plate
- 2 Face Plate
- 3 Face Plate set Spring
- 4 Set Screw for 3
- 5 Face Plate Hinges (2 pcs.)
- 6 Set Screws for 5 (4 pcs.)
- 7 Face Plate set Spring Catcher
- 8 Set Screws for 7 (2 pcs.)
- 9 Lamp Assembly
- 10 Bulb
- 11 Light Reflecting Plate
- 12 Set Screws for 11 (4 pcs.)
- 13 Thread Tension Guide
- 14 Set Screws for 13 (2 pcs.)
- 15 Thread Loose Metal
- 16 Set Screw for 15
- 17 Needle Bar Crank Rod Restrictor
- 18 Set Screws for 17 (2 pcs.)
- 19 Thread Tension Regulator
- 20 Set Screw for 19

- 21 Slide Plate
- 22 Slide Plate Back Spring
- 23 Set Screws for 22 (2 pcs.)
- 24 Needle Plate
- 25 Needle Plate Guide Screws (2 pcs.)
- 26 Set Screw for 24
- 27 Ventilation Window
- 28 Set Screws for 27 (3 pcs.)
- 29 Darning
- 30 Cord set Metal (1)
- 31 Set Screw (1) for 30
- 32 Cord set Metal (2)
- 33 Set Screw (2) for 32
- 34 Cord set Metal (3)
- 35 Set Screw (3) for 34
- 36 Cord set Metal (4)
- 37 Set Screw (4) for 36
- 38 Upper Thread Guide (1)
- 39 Set Screw (1) for 38
- 40 Upper Thread Guide (2)

- 41 Set Screw (2) for 40
- 42 Spool Pins (2 pcs.)
- 43 Spool Pins Felts (2 pcs.)
- 44 Top Cover
- 45 Set Screw for 44 (1)
- 46 Set Screw for 44 (2)
- 47 Oil Pipe (1)
- 48 Oil Pipe (2)
- 49 Needle Position Regulating Plate
- 50 Set Screws for 49 (2 pcs.)
- 51 Zig Zag Width Adjustor Stopper (1)
- 52 Zig Zag Width Adjustor Stop Screw
- 53 Nut for 52
- 54 Set Screws (1) for 51 (2 pcs.)
- 55 Zig Zag Width Adjustor Stopper (2)
- 56 Set Screw (2) for 55

- 57 Vertical Shaft Center Pin set Screw
- 58 Vertical Shaft Center Pin set Screw Stop Screw
- 59 Needle Position Regulating Lever Stopper
- 60 Set Screws for 59 (2 pcs.)
- 61 Feed Regulating Device
- 62 Set Screw for 61
- 63 Stitch Length Indicator
- 64 Set Screws for 63 (2 pcs.)
- 65 Stitch Length Regulating Dial
- 66 Set Screws for 65 (2 pcs.)
- 67 Stitch Length Indicator Plate
- 68 Set Screws for 67 (2 pcs.)
- 69 Bobbin Winder Thread Guide
- 70 Set Screw for 69
- 71 Zig Zag Control Base Plate
- 72 Set Screws for 71 (2 pcs.)
- 73 Zig Zag Regulating Lever
- 74 Zig Zag Rock & Release Button

- 75 Set Screw for 74
- 76 Zig Zag Rock & Release Button Spring
- 77 Zig Zag Indicator Plate
- 78 Zig Zag Indicator Reflecting Plate
- 79 Set Screws for 78 (2 pcs.)
- 80 Zig Zag Indicating Restrictor
- 81 Zig Zag Indicating Restrictor Spring
- 82 Zig Zag Indicator
- 83 Set Screws for 82 (2 pcs.)
- 84 Zig Zag Indicator Stop Metal
- 85 Set Screw for 84
- 86 Zig Zag Lock & Release Button Shaft Complete
- 87 Zig Zag Regulating Lever Link Complete
- 88 Zig Zag Regulating Lever Link set Pin
- 89 Zig Zag Regulating Lever Link Screw (1)
- 90 Zig Zag Regulating Lever Link Screw (2)
- 91 Zig Zag Regulating Lever Spring
- 92 Motor Cover
- 93 Set Screw (1) for 92
- 94 Set Screws (2) for 92 (3 pcs.)
- 95 Fabric Feeders Control Buttons
- 96 Set Screws for 95 (2 pcs.)
- 97 Fabric Feeders Control Buttons Connecting Rod
- 98 Fabric Feeders Control Buttons Connecting Pin
- 99 Nut for 97
- 100 Bobbin Winder
- 101 Bobbin Winder Rubber Ring
- 102 Set Screws for 100 (2 pcs.)
- 103 Fly Wheel
- 104 Fly Wheel Stop Motion Washer
- 105 Fly Wheel Stop Motion Screw
- 106 Fly Wheel Stop Motion Stop Screw
- 107 Motor Bracket
- 108 Set Screw for 107
- 109 Set Screw Washer for 107



- 181 Zig Zag Cam Box Shaft Spring
182 Vertical Shaft Link Pin
183 Vertical Shaft Link Pin Cover
184 Set Screw for 183
185 Needle Bar Connecting Rod
Bracket
186 Set Screw for 124
187 Needle Position Regulating
Lever
188 Set Screws for 187 (2 pcs.)
189 Needle Position Regulating
Lever Base Plate
190 Needle Position Regulating
Lever Arm Shaft
191 Snap Ring for 190
192 Set Screw for 190
193 Needle Position Regulating
Lever Bracket
194 Set Screw for 193
195 Forked Rod
196 Forked Rod Hinge Screw
197 Nut for 196
198 Feed Regulator
199 Feed Regulator Hinge Pin
200 Set Screw for 199
201 Washer for 199
202 Feed Regulator Tension Spring

